SUPPLEMENTAL COMMENTS ON

THE AMEL PROVISIONS OF §60.5398a

Shell1 is at the forefront of developing emerging technologies and monitoring methods for reducing methane emissions from its operations much quicker, more frequently, and at lower costs than current technologies. These new breakthrough technologies include innovative airborne monitors and other technologies, techniques, or processes that have the potential of achieving air quality improvements and preventing methane releases by inspecting multiple facilities across large geographic areas regardless of facility design and site variability.

Furthermore, these new technologies, techniques, and processes could have other very important benefits. For example, aerial monitoring technologies could be a highly effective tool for improving safety for both operational staff and the general public. Specifically, these aerial technologies have the capability of reducing miles traveled by operating staff responsible for inspecting and monitoring well sites, ancillary equipment, and the surrounding area. According to 2018 statistics published by the Texas Department of Transportation, a vehicular fatality occurred every 37 hours across 16 counties in the Permian Basin for the first four months of 2018. Reducing vehicle miles traveled through aerial monitoring technologies could play an important role in reducing the number of fatalities and improving road safety in general.

Unfortunately, the current AMEL regulations in Subpart OOOOa establish an onerous and lengthy process that will create significant barriers to the onboarding of new technologies for meeting the current work practice standards in the rule. In the proposed reconsideration rule, EPA acknowledges many of these problems with the current AMEL application process for affected facilities (such as well completions, compressors, and the collection of fugitive emissions components located at a wellsite or at a compressor station). One notable example highlighted in the proposed rule is the requirement that "each AMEL request must be submitted using site-specific information, which could result in the same owner or operator submitting identical requests for multiple affected facilities."2

To correct these significant flaws, EPA is proposing to adopt regulatory amendments that are intended to streamline the process for requesting and approving an AMEL for individual affected facilities. Although generally supportive of these proposed amendments, Shell does not believe that they are sufficient to ensure the workability and effectiveness of the AMEL application process. The following are suggested revisions to the regulatory text that attempt to streamline further and improve the effectiveness of the AMEL process:

* Allow the use of modeling results, test data, and other reliable information to demonstrate the effectiveness of new emerging technologies. AMEL applicants should be allowed to use these alternative types of data to document the equivalency in lieu of gathering twelve months of source-specific data to assess the performance of a specific emerging technology. For similar reasons, EPA should allow the use of generic test data generated from a controlled test environment for demonstrating the effectiveness of new emerging technologies. One notable example is the test data now being generated by Colorado State University's Methane Emissions Technology Evaluation Center (METEC) to test the performance of various leak detection technologies and compare their capabilities to current approved methods, such as optical gas imaging. Most importantly, METEC enables the testing of new technologies against a clear, established baseline and would follow a methodology for testing that would provide consistency and confidence in the process. In particular, controlled releases under field conditions are ideal for systems with emission source objectives because they can assess the accuracy of source quantification and/or localization under realistic meteorological conditions. Long-term testing at field sites also allows controlled releases to be tested under a diversity of meteorological conditions. The use of this generic field test data is a highly efficient and effective way for industry to document equivalence under the AMEL application process.

* Allow the use of an owner or operator to apply an AMEL granted for certain specified facilities to other affected facilities that are located within the same basin or general geographic areas (as determined by the EPA Administrator) and operated under

similar conditions and seasonal variations for which the initial demonstration has been made for affected facilities under the original AMEL. This expansion of the AMEL application process is justified given that the variation in site-specific conditions should have no impact on the performance of the emerging technology. If a new technology has been designed to detect and measure methane released into the atmosphere from selected affected facilities of an owner or operator, then that technology will operate no differently under similar operating conditions and seasonal variations for other affected facilities under the control of the same owner or operator. This flexibility should also be extended to the submission of joint AMEL applications by multiple owners or operators of affected facilities.

SUGGESTED REVISIONS TO REGULATORY TEXT

§ 60.5398a What are the alternative means of emission limitations for GHG and VOC from well completions, reciprocating compressors, the collection of fugitive emissions components at a well site and the collection of fugitive emissions components at a compressor station?

(a) If, in the Administrator's judgment, an alternative means of emission limitation will achieve a reduction in GHG (in the form of a limitation on emission of methane) and VOC emissions at least equivalent to the reduction in GHG and VOC emissions achieved under § 60.5375a, § 60.5385a, and § 60.5397a, the Administrator will publish, in the Federal Register, a notice permitting the use of that alternative means for the purpose of compliance with § 60.5375a, § 60.5385a, and § 60.5397a. The notice will:

(1) permit the use of the alternative means of emission limitation for meeting the specified compliance requirements by affected facilities designated by the owner(s) or operator(s) in the application submitted under subsection (c);

(2) authorize the owner(s) or operator(s) to apply in the future the alternative means of emission limitation to its other affected facilities that are located within the same basin or general geographic area (as determined by the Administrator) and operated under similar conditions and seasonal variations for which a demonstration of equivalency has been made for the affected facilities identified in paragraph (1); and

(3) establish, as appropriate, conditions or may condition permission on requirements related to the operation and maintenance of the alternative means.

(b) Any notice under paragraph (a) of this section must be published only after notice and an opportunity for a public hearing.

(c) The Administrator will consider applications under this section from owners or operators of affected facilities (including joint applications submitted by multiple owners or operators), as well as applications from , and manufacturers or vendors of leak detection technologies, or trade associations provided they are submitted in conjunction with at least one an owner or operator.

(d) Determination of equivalence to the design, equipment, work practice or operational requirements of this section will be evaluated by the following guidelines:

(1) The applicant must provide information that is sufficient for demonstrating the alternative means of emission limitation achieves, in aggregate, emission reductions that are is at least as equivalent to the emission reductions that would be achieved by complying with as the relevant standards. At a minimum, the applicant must collect, verify, and submit field data to demonstrate the equivalence of the alternative means of emission limitation. The ; the field data must encompass seasonal variations over the year to ensure that the technique works appropriately in different conditions that will be encountered during monitoring surveys and may include data collected at either the applicant's affected facilities or a controlled testing facility under similar operating conditions. The field data may be supplemented with modeling analyses, test data, or other documentation for demonstrating the effectiveness of the alternative technology, technique or process. The application must include the following information:

(i) A description of the technology, technique, or process.

(ii) A description of the monitoring instrument or measurement technology used in the technology, technique, or process.

(iii) A description of performance based procedures (i.e., method) and data quality indicators for precision and bias; the method The leak detection limit of the technology, technique, or process, for each type of facility (such as well sites, compressor stations) and specified environmental condition (such as wind speed, temperature, precipitation, and cloud clover) in which the technology, technique or process is proposed to be performed or applied.

(iv) For affected facilities under § 60.5397a, the action criteria and level at which a fugitive emission exists.

(v) Any initial and ongoing quality assurance/quality control measures necessary for maintaining the technology, technique, or process.

(vi) Timeframes for conducting ongoing quality assurance/quality control.

(vii) Field data from affected facilities or controlled testing facilities that demonstrates the verifying viability and detection capabilities of the technology, technique, or process. Test data, modeling analyses, or other documentation may be used to supplement field data.

(viii) Frequency of measurements and surveys conducted with the technology, technique, or process.

(ix) For continuous monitoring techniques, the minimum data availability.

(x) Sufficient data and other supporting documentation (including modeling analyses) for determining the emissions reductions achieved or avoided by the technology, technique, or process in support of making a determination of equivalency on an aggregate basis under this subsection.

(xi) Any restrictions for using the technology, technique, or process.

(xii) Operation and maintenance procedures and other provisions necessary to ensure reduction in methane and VOC emissions at least equivalent to the reduction in methane and VOC emissions achieved under § 60.5397a.

(xiii) Initial and continuous compliance procedures, including recordkeeping and reporting, if the compliance procedures are different than those specified in § 60.5397a(d).

(2) For each determination of equivalency requested, the emission reduction achieved by the design, equipment, work practice or operational requirements shall be demonstrated by field data, which can be supplemented with modeling analyses at an active production site or test data at a controlled test environment or facility.

(3) For each technology, technique, or process for which a determination of equivalency is requested, the emission reduction achieved by the alternative means of emission limitation shall be demonstrated through performance tests performed at either an affected facility or controlled testing facility that establishes the sensitivity level(s) of the methane detection technology, technique, or process for various affected facility types under different environmental conditions and other limitations and the capability of achieving aggregate emission reductions through repair action(s) at the applicant's affected facilities in the same basin or general geographic area (as determined by the Administrator).

(4) Each owner or operator applying for a determination of equivalence to a work practice standard shall commit in writing to work practice(s) that provide for emission reductions, in the aggregate, that are equal to or greater than the emission reductions that would have been achieved by the required work practice.

(e) After notice and opportunity for public hearing, the Administrator will determine the equivalence of a means of emission limitation and will publish the determination in the Federal Register.

(f)(1) An application submitted under this section will be evaluated based on the field data from the applicant's affected facilities or controlled testing facilities, modeling analyses, and other documentation that was provided to demonstrate the equivalence of the alternative means of emission limitation under this section.

(2) The Administrator may condition the approval of the alternative means of emission limitation on requirements that may be necessary to ensure that the alternative will achieve, in the aggregate, emission reductions that are at least equivalent to the emission reduction(s) that would be achieved by complying with as the reduction(s) achieved under the requirement(s) for which the alternative is being requested.

(3) Once approved, the alternative means of emission limitation shall authorize the use of the technologies, techniques or processes for meeting the compliance requirements by affected facilities, as specified in the application submitted under the subsection (c) as well as other affected facilities that:

(A) are located within the same basin or general geographic area (as determined by the Administrator);

(B) owned or operated by the same owner(s) or operator(s) who submitted the application for alternative means of emission limitation under subsection (c); and

(C) use the same technologies, techniques or processes under similar conditions and seasonal variations for which a demonstration of equivalency has been made for the affected facilities under subsection (d).

1 The companies in which Royal Dutch Shell plc directly and indirectly owns investments are separate legal entities. In this submission "Shell" is used for convenience where references would be made to Royal Dutch Shell plc and its subsidiaries in general. Likewise, the words "we", "us" and "our" are also used to refer to subsidiaries in general or to those who work for them. These expressions are also used where no useful purpose is served by identifying the particular company or companies.

2 83 Fed. Reg. at 52,080.
